This regulation provides flexibility in the permitting process given the infeasibility of limit calculation as it applies to the inorganic arsenic criteria. Permit writers need to address the infeasibility of arsenic limit development within the fact sheet. Language for the factsheet discussion can be found on the SharePoint site. Permit writers should include this language when reasonable potential, based on total recoverable arsenic, is found to exceed the inorganic arsenic human health criteria. Permits may contain numeric total recoverable arsenic effluent limitations based on aquatic life criteria only.

While numerical effluent limits may be infeasible at this time, permits must still include monitoring, source control, and BMP implementation requirements for pollutant minimization upon finding a reasonable potential. Permit writers should not use PERMIT CALC for assessment of reasonable potential given the lack of translator from total recoverable to inorganic arsenic. Rather, reasonable potential should be assessed based on a site specific review. If no arsenic is detected in priority pollutant scans or in monitoring from the last permit cycle, and there are no site specific triggers, permit writers may conclude that no reasonable potential exists. In this case, no monitoring (other than priority pollutant scans) and pollutant minimization requirements are necessary. The fact sheet should clearly document the procedure used to evaluate reasonable potential.

Permit writers should require monitoring for total recoverable arsenic, only, when reasonable potential is found. Part of BMP implementation includes regular assessment and application of adaptive management to refine the pollutant minimization process. Section 3.4 describes elements that should be included in an arsenic pollution prevention plan. Each plan should be tailored to the specific discharger and include an implementation schedule for any identified actions to reduce arsenic in wastewater.

Pollutant minimization is especially important when total arsenic concentrations in the effluent exceed a receiving water's background concentration. Data collected for permit development and in previous permit cycles could possibly be used to support the application of an intake credit. See Chapter 7 for guidance on application of intake credits.

3.1.2 Methylmercury Reduction Efforts

The EPA rule that promulgated methylmercury human health criteria for Washington became effective on December 28, 2016. This new criterion applies only to tissue residue values for methylmercury, a bioaccumulative environmental toxicant. The criterion for methylmercury, as measured in fish tissue, is 0.03 mg/kg (ppm) and applies to organism-only ingestion.

The inability to accurately translate tissue residue values into ambient water concentrations prevents the use of Ecology's PERMIT CALC spreadsheet for conducting a reasonable potential analysis (RPA) at this time. Significant research and waterbody modeling is needed to develop the appropriate translator for site specific reasonable potential analyses. The lack of appropriate translators prevents the calculation of numeric total recoverable mercury effluent limits from the new methylmercury criteria. As of May 2018, Ecology does not have a defensible procedure for translator development. EPA also does not have a 40 CFR 136 compliance method for methylmercury, further complicating the feasibility of a numeric effluent limit.

As with arsenic, the approach identified under 40 CFR 144(k) also applies to methylmercury. Until the additional waterbody-specific studies can be developed for the fish tissue translator, permit writers should assess total mercury levels in effluent for the reasonable potential to exceed the chronic aquatic life-based criteria for mercury. For surface waters not on the 303(d) list, the reasonable potential analysis should determine exceedance at the edge of the chronic mixing zone. In the case of a discharge to a listed waterbody, the point of compliance applies at the end of pipe. Chronic aquatic life-based criteria in WAC 173-201A-240 are 0.012µg/L and 0.025µg/L for freshwater and marine water, respectively.

Where reasonable potential exists, permit writers should require permittees to develop and implement BMPs, including source control efforts in permits developed after the effective date of the new methylmercury criteria. Provisions for evaluation, monitoring, and ongoing adaptive management must be a part of the BMP implementation requirement for pollutant minimization. Any required monitoring for BMP and pollutant minimization evaluations should use the EPA-approved compliance method for total mercury.

Active permits as of December 15, 2016 should not be modified to include this approach; rather, permit writers should incorporate these BMP requirements at the time of reissuance after confirming reasonable potential.

3.1.3 bis(2-ethylhexyl) phthalate (DEHP) Reduction Efforts

The EPA rule that promulgated human health criteria for bis (2-ethylhexyl) phthalate (DEHP) for Washington became effective on December 28, 2016. The new criteria, for both fresh and marine waters, significantly changed from the previous CWA-approved standards in the NTR.

DEHP, a known carcinogen, is frequently detected in wastewater effluent. Phthalates are plasticizers that are commonly used in hundreds of common consumer and building products used in everyday life. The ubiquitous chemical has also been identified as a common sampling and laboratory contaminate. Ecology's Cost Benefit Analysis (CBA) associated with the HHC rule identified the chemical as difficult to control as it enters the environment and surface waters through several different pathways.

If phthalates are detected in a facility's effluent, Permit Writers shall require permittees to re-sample their effluent using clean sampling techniques to confirm that the detection is not a result of either sampling or laboratory contamination. Resampling can occur during permit development at the request of the Permit Writer following acceptance of the permit application.

Permittees should work with an accredited laboratory on specific clean sampling requirements. At a minimum, samples should be collected in clean glass bottles with polytetrafluoroethylene (PFTE or Teflon™) lids. Standard practice may also include an equipment rinse with a non-polar solvent to remove possible organics. Accidental sample contamination from safety equipment (e.g. gloves) is also possible. All samples should be kept from directly contacting plastics of any kind.

To help assess the sample contamination potential, permittees may opt to collect a field blank for